

LISTING OF CLAIMS:

1. (Original) A semiconductor memory device comprising:
a storage element for storing information;
a constant current source for writing information into the storage element by flowing current; and
a boost circuit for charging parasitic capacitors by a time when an amount of a current flowed by said constant current source reaches an amount of a current required to write information into the storage element, at a predetermined position related to the storage element.

2. (Currently Amended) The semiconductor memory device according to claim 1, wherein
the storage element is a tunnel magnetoresistance element, and
the predetermined position ~~may be~~ is a position, a current at which generates ~~where a~~ magnetic field ~~by a current is~~ applied to the tunnel magnetoresistance element.

3. (Original) The semiconductor memory device according to claim 1, wherein
said boost circuit comprises a condenser for storing charge to charge the parasitic capacitors.

4. (Currently Amended) The semiconductor memory device according to claim 3, further comprising a circuit for setting a voltage between both electrodes of the condenser to a voltage greater than ~~or equal to~~ a power supply voltage.

5. (Currently Amended) The semiconductor memory device according to claim 3, wherein

the condenser is increased to a plurality of ~~the condensers are provided,~~ and
said boost circuit comprises switching means for ~~switching a~~ selecting one or more condensers to be used for charging, according to an amount of charge required to charge the parasitic capacitors.

6. (Original) The semiconductor memory device according to claim 5, wherein the switching means switch a combination of condensers to be used for charging, according to an amount of charge required to charge the parasitic capacitors.

7. (Original) The semiconductor memory device according to claim 5, wherein capacitances of at least a part of the condensers are mutually related by a geometric progression.

8. (Original) The semiconductor memory device according to claim 5, wherein capacitances of at least a part of the condensers are determined according to capacitances of the parasitic capacitors depending upon an amount of a current required to write information into the storage element.

9. (Original) The semiconductor memory device according to claim 5, wherein capacitances of at least a part of the condensers are determined according to capacitances of the parasitic capacitors depending upon a position of the storage element.

10. (Original) The semiconductor memory device according to claim 5, wherein capacitances of at least a part of the condensers are determined according to capacitances of the parasitic capacitors depending upon a process condition.

11. (Currently Amended) The semiconductor memory device according to claim 3, comprising returning means for returning at least a part of charge on parasitic capacitors which are present on a current path of a current for writing information into the storage element, to a node where charge of said boost circuit is stored.

12. (Original) The semiconductor memory device according to claim 3, wherein a time when storing charge in said boost circuit is set at a time after completion of an operation period of said constant current source.

13. (Currently Amended) The semiconductor memory device according to claim 1, comprising charge retention means for retaining a part of charge on parasitic capacitors which are present on a current path of a current for writing information into the storage element, in dependence on history of an operation mode, so as to suppress discharge of said boost circuit.